

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) Luminescent nanoparticles comprising:

- (a) a core ~~made from~~ comprising a luminescent metal salt selected from phosphates, sulfates or fluorides, ~~being surrounded by;~~ and
- (b) a shell surrounding the core, wherein the shell comprises ~~made from~~ a metal salt or oxide capable of preventing or reducing energy transfer from the core ~~after its electronic excitation to the surface of the nanoparticle, after electronic excitation of the core.~~

2. (Currently Amended) Luminescent nanoparticles according to claim 1, wherein the luminescent metal salt of the core and the metal salt of the shell ~~comprise the same anion, said anion being~~ are both selected from phosphates, sulfates or fluorides.

3. (Previously Presented) Luminescent nanoparticles according to claim 1 having an average diameter based on their longest axis of less than 30 nm.

4. (Previously Presented) Luminescent nanoparticles according to claim 1, wherein the average thickness of the shell does not exceed the average diameter of the core.

5. (Currently Amended) Luminescent nanoparticles according to claim 1 wherein the core ~~is made from~~ comprises a ~~preferably~~ doped luminescent metal sulfate, phosphate or fluoride and the shell consists of a non-luminescent ~~material~~ metal salt.

6. (Currently Amended) Luminescent nanoparticles according to claim 5, wherein the core is made from comprises a doped host metal sulfate, phosphate or fluoride, wherein the host metal is selected from group 2 (earth alkaline earth metals), group 3 (Sc, Y, or La), group 13 (e.g., Al, Ga, In or Tl), or Zn, and the dopant is at least one lanthanide metal selected from Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, or Yb, or a transition metal selected from Cr and Mn.

7. (Currently Amended) Luminescent nanoparticles according to claim 5, wherein the core is made from comprises a doped host metal sulfate, phosphate or fluoride, wherein the host metal and the dopant are selected from Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, or Yb.

8. (Original) Luminescent nanoparticles according to claim 7 wherein the core consists of CePO₄:Tb or CePO₄:Nd and the shell of LaPO₄.

9. (Currently Amended) Luminescent nanoparticles according to claim 1 wherein the core consists of a luminescent lanthanide sulfate, phosphate or fluoride and the shell consists of a lanthanide salt or oxide being different from the core material and preventing or reducing energy transfer from the core after its electronic excitation to the surface of the nanoparticle, after electronic excitation of the core.

10. (Currently Amended) Luminescent nanoparticles according to claim 9 wherein the core preferably consists of a Nd sulfate, phosphate or fluoride, and the shell consists of a Gd salt or oxide.

11. (Currently Amended) A process for the preparation of luminescent nanoparticles comprising
the steps of:

preparing a first mixture comprising an optionally doped, luminescent metal sulfate, phosphate or fluoride nanoparticles nanoparticle cores in an organic medium[[],] ; and reacting said first mixture, an anion source for the shell to be formed and a second mixture comprising shell-forming metal ions and an organic complexing agent for said metal ions at a temperature of 50 to 350 °C until a shell has formed around said luminescent nanoparticles nanoparticle cores.

12. (Currently Amended) The process according to claim 11, wherein said reacting comprises:

heating said first mixture to a temperature of 50 to 350 °C, and adding to this first mixture at this temperature, dropwise and separately, an anion source for the shell to be formed and a second mixture comprising shell-forming metal ions and an organic complexing agent for said metal ions, until a shell has formed around said luminescent nanoparticles nanoparticle cores.

13. (Currently Amended) The process according to claim 11, wherein said reacting comprises:

adding an anion source to said first mixture
heating the resulting mixture to a temperature of 50 to 350 °C,
adding thereto a second mixture comprising shell-forming metal ions and an organic complexing agent for said metal ions at this temperature until a shell has formed around said luminescent nanoparticles nanoparticle cores.

14. (Currently Amended) The process according to claim 11 wherein said reacting comprises:
combining said first mixture, an anion source for the shell to be formed and a second
mixture comprising shell-forming metal ions and an organic complexing agent for said metal
ions, and

heating the resulting mixture to a temperature of 50 to 350 °C until a shell has formed
around said luminescent ~~nano~~particles ~~nano~~particle cores.

15. (Currently Amended) The process according to claim 11, wherein the organic
medium [[being]] present in the first mixture and the organic complexing agent [[being]] present
in the second mixture are identical.

16. (Currently Amended) The process according to claim 11, wherein the organic
medium and the complexing agent are selected from mono-or dialkyl amines wherein the alkyl
residues have from 4 to 20 [[C]] carbon atoms, phosphororganic compounds, polyols and
sulfoxides.

17. (Currently Amended) The process according to claim 11, comprising the steps of
synthesizing the nanoparticle cores in said organic medium followed by reacting these cores
without prior isolation.

18. (Currently Amended) The process~~Process~~ according to claim 11, wherein the anion source, in particular phosphate, sulfate or fluoride source is used in excess molar amounts based on the stoichiometrically required amount for reacting with available shell-forming metal atoms.

19. (Currently Amended) A fluid [[Fluid]] or solid medium containing the nanoparticles according to claim 1.

20. (Currently Amended) A fluid [[Fluid]] medium according to claim 19 selected from an organic or aqueous dispersion medium, a coating composition, [[an]] ink, [[or]] dye, [[a]] polymer composition, or [[an]] aerosol.

21. (Currently Amended) A solid [[Solid]] medium according to claim 19 selected from a coating, ink, [[or]] dye, or [[a]] polymer composition, in particular a polymer film.

22. (Cancelled)

23. (New) The process according to claim 18, wherein the anion source is phosphate, sulfate or fluoride.

24. (New) The fluid or solid medium according to claim 19, wherein the solid medium is a polymer composition.

25. (New) The fluid or solid medium according to claim 24, wherein the polymer composition is a polymer film.

26. (New) The process according to claim 11, wherein said luminescent metal sulfate, phosphate, or fluoride nanoparticle cores are doped.